

Competency Development for assuring Quality in Open and Distance Learning in Nigeria

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Abstract

A major characteristic of the 21st century knowledge economy is an increasing demand for global standards and best practices. Within the education industry, and specifically in developing countries like Nigeria, the demand is more deeply felt as practitioners grapple with the growing demands for higher education on one hand, and with the demand from consumers of the products and services for improved quality on the other hand. While assuring quality is applicable to all educational delivery systems, Open and Distance Learning (ODL) differs quite substantially from conventional education systems in several ways, and one of which is the core competency requirements for academic staff. The success and sustainability of ODL systems is dependent on the availability of a critical mass of experts in the field. In Nigeria, the goal to achieve adequate levels of competency in ODL is yet to be realised. This study has two aims: One, it seeks to identify core competencies in key pedagogical thematic areas of the ODL system; and second, it seeks to use the findings to determine competency gaps of academic staff in an ODL system, the National Open University of Nigeria. The pedagogical areas are course material development, tutorial facilitation; assessment and evaluation; and research and evaluation. It is expected that this study will contribute to informing the design of training programmes that will bridge competency gaps and develop competencies to achieve sustainable good practices in ODL.

Introduction

The concept of open and distance learning (ODL) and quality are almost inseparable by virtue of the characterization of ODL as an ‘industrialised’ form of learning (Peters 1983) such that the division of labour which characterises ODL implies inspection of its products and services to ensure their quality. In addition, ODL delivery systems have had to demonstrate capability to deliver significant improvements viz conventional systems in terms of increased access to higher education at relatively reduced costs without compromising quality. Although assuring quality applies to both conventional and ODL institutions, the demand for evidence of quality and therefore credibility is required more from ODL institutions due to the perception that their operational parameters of openness and flexibility give room for lower quality of output. Unquestionably however for both systems, the quality of content and instructional delivery is a critical factor that determines not only quality of the teaching process but also for achieving quality and sustenance of the learning process. Indeed, as Varvel (2007) notes, the quality of a course is as important as the quality of instruction. Reju & Olakulehin (2008) note that ‘the process of quality assurance in open and distance learning commences with the academics who should, in addition to being qualified, must have other attributes such as a passion for, and

commitment to distance education as a mode of learning, empathy with learners and skills to participate in a learning mode that demands just as much in terms of creativity and professional expertise from the academic as it does from the student'. However, many instructors though qualified in their various disciplines, come into ODL systems with little or no experience or training in the field of distance education. Most rely primarily on their experience from conventional contexts which differ substantially from distance education in terms of the competencies required. The inability on the part of academics to appreciate the paradigm shift from 'dominantly teaching based to dominantly learning based paradigms in education and training systems' constitutes a competency deficiency (Jegede, 2010). To this end, there is a general consensus on the fact that academics moving into ODL contexts need to acquire certain core competencies (COL 2001, COL, 1999) The situation is particularly significant for the development of ODL in Nigeria where a critical mass of expertise is yet to be achieved (Ofulue, in press). As noted by Peters& Olakulehin (forthcoming), the practice of ODL is not entirely new in Nigeria since some form of distance education or the other had been in existence as early as the 1960s. A lot has changed since then buoyed by many social and technological factors not the least of which is the availability of increasingly effective, and easily adaptable mediums of communication use to deliver instruction. Consequently, the human resource requirements have also changed considerably since then in response to the various needs of a more diverse population of learners. The pervasive perception of the products of ODL systems as being second rate in comparison with products of conventional systems has made it imperative for ODL institutions to ensure that their academic staff is equipped with the required competencies in order to produce quality assured products.

If it is a fact that academics who convert to ODL practice have little or no prior knowledge of the concepts and theory that underpins the practice, then it behoves on institutions to train academics in order that they are equipped to produce products that fit for purpose. Training, as an important quality assurance tool, is need for the acquisition of required competencies for staff who need to adapt existing knowledge and skills to ODL operations. It is in this light that quality and the competency development of human resources are closely interrelated such that quality cannot be assured nor sustained if competency is lacking. It is our view that competencies of academics in both their academic fields and in ODL processes is a prerequisite for sustainable good practices in ODL; and the pathway to developing competencies is through capacity building in core aspects of ODL operations such as programme and course material design and development; Learner support viz tutorial facilitation; assessment and evaluation; and research and evaluation. Indeed, these aspects also constitute the key criteria standards for assessing distance higher education institutions and programmes (COL, 2009).

The study seeks to examine the competency requirements of academic staff as a critical component for assuring quality within an ODL system. Using academic staff at NOUN as a case study, the study seeks to illustrate this by 1) assessing the competencies that academic staff at

NOUN have; and 2) determining the gaps in competencies that academic staff have acquired through training in ODL by comparing what they have with what they should have. It is expected that this study will contribute to informing the design of training programmes that will bridge the competency gaps and develop competencies to achieve sustainable good practices in ODL.

Competency requirements of Academic Staff in Conventional and ODL systems

In conventional systems, core competencies of teaching academic staff comprise of relevant content knowledge evidenced by way of requisite qualifications in their discipline; skills, ability and experience evidenced by years of teaching experience at the tertiary level; and research by way of publications in their respective disciplines. In ODL systems, these core competencies are regarded only as basic and the emphasis is on developing a different set of core competencies for ODL. To support this view, Guash et al (2009, 2) note that ‘ a change in the nature of environment calls for new competencies’ even though teachers’ functions in a virtual [or distance] environment are in principle an extension and/or transfer of the functions required to teach in a face to face context.

What is competency? And what is its relevance in building sustainable ODL systems? A paraphrased dictionary meaning of competence is ‘one who has the relevant skills, ability or experience to perform a task efficiently and effectively’ (Collins, 2006). In view of the presence of the key aspects in the meaning of competency as well as its application in a similar context of ODL, we adopt Varvel’s (2007) definition of competency as ‘appropriate prior knowledge, skills, attitudes, and abilities in a given context that adjust and develop with time and needs in order to effectively and efficiently accomplish a task and that are measured against a minimum standard’. Varvel explains further that to be competent is not ‘the awareness, the attainment, or even the knowledge of the various attributes ... , although all of these play a part...rather, to be competent is the juxtaposition of this knowledge with the application of that knowledge in a teaching practice’. Aligning this definition to the tasks earlier stated, means that a competent academic staff in ODL is ‘one who effectively and efficiently accomplishes academic tasks of programme and course material development; facilitation; assessment and evaluation; and research in ODL using appropriate knowledge, skills, attitudes, and abilities that have adjusted and developed with time and needs’. Therefore, Varvel is of the view that a competency document that outlines in functional and observable terms, the abilities and expectations of one who is competent would be necessary to enhance the quality of products and services in ODL environments. It is important to note that a document outlining competencies which academic staff should have is primarily an outline of expectations and goals to be used as a guide over time. Such a systematic approach to developing competencies is particularly important in contexts like Nigeria where a critical mass of experts in ODL is lacking because academics who come into the ODL system from a conventional setting are qualified in their various fields but often have little or no experience or training (zero competency) in the field of distance education. The impact of competencies on teaching output cannot be over emphasized for as Varvel puts it,

the more competencies that an instructor possesses, the higher the propensity that courses instructed by that instructor will result in positive outcomes for a greater number of students. Thus, the goal is to make the best use of the competencies that one does possess and then strive to develop the ones lacking but which are helpful to the given context'. Other authors have similarly adduced importance to providing competency guidelines. O'Rourke (1993) provides guidelines that have taken into consideration, different stages of development of an ODL institution. She distinguishes between competencies and roles of staff when starting a new ODL institution; implementation and ongoing operation of an ODL system. Thus, she recommends that a young institution should focus on growth by making provision for *increased competency* (p.4).

In this study, focus is on the core competencies required for academic staff in performing their roles. As a result, competencies that are not considered to be pedagogical even though core for ODL operations will not be addressed. In our review of literature on the competencies an academic staff should have in order to be able to function effectively in an ODL institution, we observed some basic similarities even though some of the studies address competencies required for a virtual environment (O'Rourke, 1993; Williams, 2000, Varvel, 2009; Guash, Alvarez and Espasa, 2009). First, we note that the studies either based their analysis on other studies or themselves used the pattern of competency studies by using a panel of experts in distance education to determine roles and competencies. Surveys using questionnaires were also used to obtain responses from the staff themselves and the students through course evaluations. Several desirable competencies have been reported in literature. A total of 247 competencies were listed by Varvel (2009). Williams (2000) on his part identified 30 general competencies. In our analysis of the literature, we noted that although there were overlaps, and other core areas highlighted given the different contexts within ODL, there was some consensus in identifying the core areas of competencies of academic staff. The core areas are 1) General knowledge of ODL category; 2) Pedagogical category which was sub-divided elsewhere into i) instructional design; ii) instructional delivery; and iii) assessment; and 3) social category. Although research and evaluation did not feature in all of the studies analysed, it was considered to be a core category for academic staff based on the competencies required of academics in general and on the criteria standards designed for assuring quality of ODL systems in particular (COL, 2009). Technological competencies rated highly for virtual environments. The validity of setting up these categories as the core areas of competencies required for academic staff in ODL systems is further supported by the criteria standards adopted for assuring Quality of Distance Higher education institutions and programmes (COL, 2009). These criteria formed the basis and scope for our investigations and the standard against which the data was analysed. Competency is developed over time and as such is best rated on a continuum that reflects knowledge and skills for varying levels of functions.

Delimitations: The study does not address all the core competencies expected of academic staff in an ODL system. Rather it seeks to address only core competencies that are required for pedagogical functions. As such, other important skills such as the social function of academic in ODL will not be covered by this study.

The study was guided by the following questions:

Research Questions

1. What competencies did academic staff at NOUN have prior to their employment in an ODL institution?
2. What competencies have academic staff acquired since joining NOUN?
3. What core competencies in ODL are staff with academic functions in ODL expected to have and academic staff at NOUN do not have?

Based on the research questions, the following hypotheses were developed to guide our analysis

Hypotheses

1. Academic staff have competencies prior to their employment at NOUN that are required in an ODL system
2. Academic staff have acquired knowledge through training in ODL since joining NOUN
3. Academic staff at NOUN have acquired knowledge and skills for academic functions in ODL.

Methodology

Sample

The population for this study comprised all full time academic staff at the National Open University of Nigeria, and part- time tutorial facilitators of Lagos Study Centre which caters for about 50% of the university's student population. Based on the current personnel record at the time of conducting this study, 78 full time academic staff were in the employment of the institution, while an estimated total of 150 tutorial facilitators. A randomly selected sample size of 62 academic staff and 11 tutorial facilitators participated in the survey. These figures represent 79.5% and 7% respectively of the total population.

Instrumentation and Administration

The instrument was 6- page questionnaire designed using the criteria earlier identified from previous competency studies and a total of 52 items were developed. The items were divided into 6 sections. Section 1 was on respondent's biographical profile; Section 2 asked respondents to evaluate their knowledge of general attributes of ODL; Section 3 was on knowledge and skills in

Programme and Course design and development; Section 4 was on knowledge and abilities in Tutorial facilitation; Section 5 was on knowledge and skills in Assessment and Evaluation; 5) was on knowledge of Research and Evaluation and evidence of output; and Section 6) asked respondents to evaluate the Institution in terms of motivating competency development. Sections 2, 3, 4, 5 and 6 required responses to 40 items on a five-point Likert type scale of ‘Very Extensive, Extensive, Average, Little, and None scored as 5, 4, 3, 2, and 1 respectively. A column for open ended comments was provided for sections 3 to 6. A pilot test using a sample of 12 academic staff was conducted to confirm the clarity of the items before the instrument was administered to the sample group.

Result and Findings

The result and findings below are presented in terms of frequencies and percentages of respondents’ responses. In addition, certain variables were cross-tabulated with others to determine if there is any significance or impact by their relationship or association in determining the level of competencies of the academic staff. Observation of significant relationships are presented and discussed.

Research Question 1: What competencies did academic staff at NOUN have prior to their employment in an ODL institution?

Table 1: Background of Academics prior to employment at NOUN

Variable		Frequency	%
Rank	Senior (Professor – Programme Leader)	18	24.7
	Junior (Course Coordinator- Asst. Course Coordinator)	44	60.3
	Tutorial Facilitator	11	15
Gender	Male	39	53.4
	Female	34	46.6
Highest Educational Qualification	PhD	37	50.7
	M.Sc/M.A/M.Ed/LLM	33	41.1
	Others	3	9.2
Years of tertiary Teaching experience	0-3 years	24	32.9
	4 – 5 years	17	23.3
	7 -9 years	11	15.1
	10 years& above	21	28.8
Prior Experience in distance education	Yes	42	57.5
	No	29	39.72

The distribution in the qualification of respondents shows that 50.7% hold PhDs in their respective disciplines. There is a spread out distribution in respondents' years of experience (15.1% - 32.9%) indicating a wide range of different levels of abilities and skills acquired via experience. We note that the percentage of respondents with fewer years of teaching experience, 0 – 5 years at 56.1% is slightly greater those with more years of experience 7- 10 years and above at 43.9%. Respondents' responses to prior experience in distance education was premised on the nature of such experience which includes experience their as a learner, course writer, or tutorial facilitator. The results provide an answer to our research question which sought to know the competencies academic staff had prior to their employment at NOUN. The results show that the academic staff possess competencies in terms of requisite academic qualifications and years of tertiary teaching experience prior to their employment at NOUN. It also confirms that most of them come from conventional educational systems. While having prior experience in distance education does not preclude knowledge of the concepts and practices of ODL, the data shows that a greater percentage of respondents have experienced the practice of ODL in one form or the other.

Research Question 2: What competencies have academic staff acquired since joining NOUN?

The distribution of respondents' participation in training workshops (table 2a) and the knowledge acquired (table 2b) were tabulated and are presented.

Table 2a: Competencies acquired through training in ODL since joining NOUN

9. Type of Training acquired in ODL at NOUN	Frequency	%
Induction workshops	34	54.8
Orientation workshops	24	38.7
Headship of a Unit	12	19.4
Member of a taskforce/ committee	16	25.8
Training/ supervision of new or other cadre of staff	13	21
Organization of seminars/ workshops in ODL	29	46.8
Course material development	41	66.1
Formal distance learning e.g. PGDDE	10	16.1
Attended conference/ workshop on ODL	28	45.2
Publication in ODL in international journal	16	25.8

Represented unit in University committees	19	30.6
Study visits to other ODL institutions	9	14.5

Tables 2a and 2b show the distribution of respondents' participation in training and the topics in which training was acquired. Where the percentage of respondents who have not participated in each of the training types is greater than those who have participated, it is an indication of training deficiencies which need to be remedied. In table 2a, the distribution of respondents' responses shows areas in which training has been acquired. This parameter holds true for all but induction and course material development training with 54.85 and 66.1% respectively where percentage of participation was higher than percentage of non-participation.

Table 2b: Competencies acquired through training since joining NOUN

Knowledge and skills in ODL acquired through training	Frequency	%
Concept & Practice of ODL	37	59.7
Course Writing	47	75.8
Instructional Design	35	56.5
Multi-media Design	18	29
Research Methodology	13	21
Learners' Support	12	19.4
Tutorial Facilitation	17	27.4
Quality Assurance	24	38.7
Assessment & Evaluation	29	46.8
Copyrights	11	17.7
Others	7	11.3

Similarly in table 2b, where the percentage of respondents who have not acquired knowledge in the various areas listed is greater than those who have acquired such knowledge through training, it is an indication of knowledge deficiency which needs to be remedied. This parameter holds

true for all but concept and practice of ODL (59.7%); course writing (75.8%); and instructional design (56.5%) because the percentage of respondents who participated is greater than the percentage of participation. The competencies that academic staff have acquired is indicated by the percentage of those who have participated in training and in knowledge acquisition. It was observed in tables 2a and 2b that the percentages of respondents who have not participated in training and nor have acquired knowledge in various aspects of ODL practice was greater than those who have participated in training.

Research Question 3: What core competencies in ODL are staff with academic functions in ODL expected to have and academic staff at NOUN do not have?

Competencies that academic staff have acquired since joining the institution were compared with the competencies they should have that is, in the academic functions earlier identified. The results in tables 2a and 2b confirm that academic staff have acquired competencies in ODL through training but there are gaps in the percentages, and in the knowledge of respondents who have acquired these competencies. To further determine the aspects in which academic staff have competencies in relation to aspects in which they are expected to have competencies, respondents were asked questions to elicit responses using a 5-point Likert scale on their knowledge and skills in the 5 identified areas of academic functions in ODL.

General ODL Attributes: A total of 4 questions were asked on respondents' knowledge on the concept and practice of ODL; size of faculty viz support; nature of integration of ODL activities; and role of academics in learner support. Overall, more respondents were average in their knowledge with 40.3%: 37.1%: 59.7%: 41.9% respectively (cf. table 2 in appendix). The percentages of respondents who fall within none-average across the four items is greater than the percentage of respondents who are have extensive and very extensive knowledge; thus suggesting that there is a gap in the knowledge of respondents of general attributes of ODL. Higher percentages for extensive and very extensive (46.8%, 27.4% and 45.2%, 25.8%) in terms of the willingness and openness to new approaches and perspectives to teaching indicated that most respondents are positively disposed to learning new approaches such as developing new core competencies in ODL.

Programme and Course Design and Development: Respondents were asked a total of 6 questions on their knowledge of processes and procedures for programme design and development; kinds of resources and timeframes required for course writing; familiarity with course writing process; knowledge of usefulness of a range of media; production processes; and copyright requirements. A greater majority of respondents recorded average percentages ranging between 30.6% and 50% for their knowledge across the various aspects of programme and course design and development (cf. table 3 in appendix). Percentages are highest for items 22 and 24 as 56.4% and 59.6% of respondents claim extensive and very extensive knowledge in course writing processes and production processes respectively. The percentages of respondents

who fall within none-average are greater than the percentages of respondents who have extensive and very extensive knowledge; thus suggesting that there is a gap in the knowledge of respondents in programme and course material design and development.

Tutorial Facilitation: A total of 5 questions were asked to determine respondents' knowledge of facilitation in ODL and the tasks of a tutorial facilitator; familiarity with courses being taught; students profile; ability to balance the demands of course facilitation and learners needs; and ability to communicate with learners. Percentages of respondents who claim that their knowledge of tutorial facilitation in ODL is extensive or very extensive is greater only for item 31 (56.3%) than those who fall within the none-average (cf. table 4). For items 33 and 34, the percentage of respondents who claim to possess extensive and very extensive skills is greater than those who fall within the none-average range only for item 33 (53.5%); thus suggesting selective gaps in knowledge and skills for items 30, 32, and 34.

Assessment and evaluation: A total of 5 questions were asked to determine respondents' competence in testing and evaluation in ODL context; question item generation; question item generation for use on an e-platform; question generation for tutor marked assignments; and grading and moderation. Percentages of respondents who claim that their knowledge and skills in assessment and evaluation in ODL is extensive or very extensive is greater across the items except for item 35, than the percentage of respondents who fall within the none-average range; thus suggesting that academic staff have requisite competence in assessment and evaluation except in the aspect of testing and evaluation in ODL context (cf. table 5).

Research and Evaluation: A total of 4 questions were asked to determine respondents' competence in research methodology in ODL; carry out research in ODL; needs analysis in ODL; and develop evaluation systems to improve ODL processes. Percentages of respondents who claim that their knowledge and skills in research and evaluation in ODL is extensive or very extensive is less than the percentage of respondents who fall within the none-average range; thus suggesting there are gaps in the competencies of academic staff in research and evaluation in ODL (cf. table 6).

Test of Hypotheses

The hypotheses of this study are tested so as to confirm or reject earlier results obtained from the analysis through frequency counts. So far, this study has established the fact that academic staff have competencies prior to their employment in an ODL system. Second, academic staff at NOUN have an average degree of knowledge and skills in the core areas of ODL processes, but are yet to attain competency levels in most of the aspects investigated. As such, there are gaps in the knowledge and skills in ODL of academic staff.

Hypothesis 1: There is no significant relationship between training academic staff acquired in ODL since joining NOUN and knowledge required

Cross tabulations were carried out to determine the relationship between types of training in ODL and a composite of respondents knowledge of each of the core areas namely of general attributes of ODL; of programme & course design and development; of tutorial facilitation; and research methodology (cf. tables 7-10 in appendix). The chi-square test as administered to the data which yielded the responses of the respondents in this respect proved significant for all except tutorial facilitation. The group of respondents who found training adequate also claimed adequate knowledge in the identified academic functions (except for tutorial facilitation). Therefore, the hypothesis which states that there is no significant relationship between training academic staff acquired in ODL since joining NOUN and competency required is rejected for all except with regards to tutorial facilitation.

Hypothesis 2: There is no significant relationship between knowledge and skills acquired by academic staff at NOUN and competencies required for academic functions in ODL

Cross tabulations were carried out to determine the relationship between knowledge and skills in ODL and respondents knowledge of each of the core areas namely of general attributes of ODL; of programme & course design and development; of tutorial facilitation; and research methodology (cf. tables 11-14). The chi-square test as administered to the data which yielded the responses of the respondents in this respect proved significant in all areas. The group of respondents who claimed adequate acquisition of knowledge and skills in ODL also claimed adequate knowledge in the identified academic functions. Therefore, the hypothesis which states that there is no significant relationship between knowledge and skills acquired by academic staff at NOUN and competencies required for academic functions in ODL is thus rejected.

Open ended Comments

Comments on each section were elicited in the form of open ended questions. Most respondents indicated computer literacy as part of their personal development efforts. Several respondents expressed their need for workshops in areas including regular induction workshops; further training and regular workshops on course material development, Quality Assurance, Multimedia, assessment and evaluation, and tutorial facilitation. Comments on how respondents' output could be enhanced included reduced work load, reduction in administrative duties; dedicated periods for course writing. As regards facilitation, a number of respondents highlighted the benefits of full time staff participating in facilitation. On institutional provision that could enhance performance, respondents expressed the need to be provided with the tools to perform their tasks; the need to for senior academics to mentor junior academics, clearly stated expectations; and the need to motivate rather de-motivate high output and include among promotional considerations. The opinions expressed are similar to those expressed in the findings of Peters and Olakulehin (2008) thus indicating that little has changed between the period that study and the present study was carried out.

Conclusions and Recommendations

It is important to note that while the frequencies reveal possible gaps in competencies, the cross tabulations show a positive association between respondents' knowledge and skills acquired through training in ODL and the competencies associated with the various aspects of academic function. That is, where a greater percentage of respondents rated their knowledge and skills as not adequate, there was a corresponding inadequacy in the competency areas among the same group and verse versa. It confirms that there is a link between training and skills acquisition, and improving competencies. The benefits of identifying the gaps will facilitate training programmes that are specifically designed to address the gaps and thus facilitate the growth of respondents from average to competency levels. Peters & Olakulehin (forthcoming) investigated the translational experiences of academic staff at NOUN as they adapted to new competency requirements of distance learning systems was examined. They describe the process of 'conversion' of academic staff who comprise of new PhD holders and experienced academics with several years of experience in academia as consisting of training programmes to equip them with required competencies for their new roles. In their findings, they observed that the attitude of academic staff was positively disposed to developing their competencies through participation in trainings, seminars and conferences; and for conducting research in both systemic and individual discipline specific areas; provided the resources and infrastructure are made available. The present study further confirms the positive disposition of academic staff to undergo training and acquire new competencies. It goes further to identify the gaps in the development of competencies of academic staff.

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Appendix

Table 2: Knowledge of General Attributes of ODL

	13 Knowledge about concept & Practice of ODL		14 Knowledge about size of faculty viz support staff		15 Knowledge about nature of integration of ODL activities		16 Knowledge about role of academics in learner support		17 Willingness to learn new approaches		18 Openness to new perspectives on teaching	
	Fre quency	%	Fre Quency	%	Freq uency	%	Frequ ency	%	Fre quency	%	Fre quency	%
None	1	1.6	3	4.8	1	1.6	1	1.6	2	3.2	3	4.8
Little	8	12.9	11	17.7	2	3.2	5	8.1	8	12.9	6	9.7
Average	25	40.3	23	37.1	11	17.7	9	14.5	37	59.7	26	41.9
Extensive	22	35.5	18	29	29	46.8	28	45.2	11	17.7	20	32.3
Very Extensive	4	6.5	2	3.2	17	27.4	16	25.8	2	3.2	4	6.5
Null	2	3.2	5	8.1	2		3	4.8	2	3.2	3	4.8
Total	62	100	62	100	62	100%	62	100	62	100	62	100

Table 3: Programme and Course Design & Development

	20 Knowledge of processes& procedures for programme design and development		21 Knowledge about the kinds of resources and timeframes required for course material development		22 Familiarity with course material writing processes		23 Knowledge of usefulness of a range of media		24 Knowledge of logistic and production processes		25 Knowledge of copyright requirements	
	Fre- quency	%	Fre- quency	%	Fre- quency	%	Fre- quency	%	Fre- quency	%	Fre- quency	%
None	6	9.7	4	6.5	1	1.6	2	3.2	2	3.2	1	1.6
Little	11	17.7	6	9.7	7	11.3	13	21	11	17.7	4	6.5
Average	26	41.9	28	45.2	19	30.6	27	43.5	31	50	20	32.3
Extensive	17	27.4	17	27.4	26	41.9	15	24.2	13	21	27	43.5
Very Extensive	1	1.6	6	9.7	9	14.5	5	8.1	5	8.1	10	16.1
Null	1	1.6	1	1.6	0	0	0	0	0			
Total	62	100	62	100	62	100	62	100	62	100	62	100

Table 4: Knowledge & Skills in Tutorial Facilitation

	30 Knowledge about facilitation in ODL and tasks of a tutorial facilitator		31 Familiarity with course(s) being taught		32 Knowledge about students profile		33 Ability to balance demands of course facilitation & learners needs		34 Ability to communicate with learners to resolve problems	
	Fre-quency	%	Fre-quency	%	Fre-quency	%	Fre-quency	%	Fre-quency	
None	7	11.3	6	9.7	4	6.5	5	8.1	8	12.9
Little	7	11.3	7	11.3	6	9.7	7	11.3	6	9.7
Average	18	29	10	16.1	21	33.9	18	29	13	21
Extensive	15	24.2	19	30.6	17	27.4	19	30.6	20	32.3
Very Extensive	10	16.1	16	25.8	9	15.8	8	12.9	11	17.7
Null	5	8.1	4	6.5	5	8.1	5	8.1	4	6.5
Total	62	100	62	100	62	100	62	100	62	100

Table 5: Knowledge & Skills in Assessment and Evaluation

	35 Knowledge of testing and evaluation in ODL context		36 Knowledge of question item generation		37 Ability to generate question items for use on a e-platform		38 Ability to generate questions for tutor marked assignments		39 Ability to assign grades & moderate scores	
	Fre-quency	%	Fre-quency	%	Fre-quency	%	Fre-quency	%	Fre-quency	%
None	3	4.8	0	0	1	1.6	0	0	1	1.6
Little	6	9.7	3	4.8	3	4.8	3	4.8	2	3.2
Average	26	41.9	25	40.3	21	33.9	15	24.2	16	25.8
Extensive	25	40.3	30	48.4	30	48.4	32	51.6	32	51.6
Very Extensive	2	3.2	4	6.5	7	11.3	12	19.4	11	17.7
Null	0	0	0	0	0	0	0	0	0	0
Total	62	100	62	100	62	100	62	100	62	100

Table 6: Knowledge & Skills in Research and Evaluation

	40 Knowledge of research methodology in ODL		41 Ability to carry out research in ODL		42 Ability to carry out needs analysis in ODL		43 Ability to develop evaluation systems to improve ODL processes	
	Fre- quency	%	Fre- quency	%	Fre- Quency	%	Fre- quency	%
None	2	3.2	1	1.6	4	6.5	5	8.1
Little	11	17.7	7	11.3	7	11.3	6	9.7
Average	26	41.9	29	46.8	23	37.1	31	50
Extensive	17	27.4	17	27.4	22	35.5	16	25.8
Very Extensive	5	8.1	6	9.7	5	8.1	3	4.8
Null	1	1.6	2	3.2	1	1.6	1	1.6
Total								

Table 7: Types of training in ODL and ODL general attributes

Crosstab

			v16cc general attributes			Total
			knowledge not adequate	average knowledge	knowledge very adequate	
v9b types of training in ODL participated in	training in ODL adequate	Count	11	17	5	33
		Expected Count	16.0	12.8	4.3	33.0
		% within types of training in ODL	33.3%	51.5%	15.2%	100.0%
	training in ODL not adequate	Count	19	7	3	29
		Expected Count	14.0	11.2	3.7	29.0
		% within types of training in ODL	65.5%	24.1%	10.3%	100.0%
Total		Count	30	24	8	62
		Expected Count	30.0	24.0	8.0	62.0
		% within types of training in ODL	48.4%	38.7%	12.9%	100.0%

$\chi^2_{\text{cal.}} = 6.56$ critical value = df = 2 (Significant)

Table 8: Types of ODL training participated in ODL and Knowledge of programme & Course design and development

			v25cc knowledge of programme & course design/development			Total
			knowledge not adequate	average knowledge	knowledge very adequate	
v9b types of training in ODL participated in	training in ODL adequate	Count	6	13	14	33
		Expected Count	12.2	11.7	9.0	33.0
		% within types of training in ODL	18.2%	39.4%	42.4%	100.0%
	training in ODL not adequate	Count	17	9	3	29
		Expected Count	10.8	10.3	8.0	29.0
		% within types of training in ODL	58.6%	31.0%	10.3%	100.0%
Total		Count	23	22	17	62
		Expected Count	23.0	22.0	17.0	62.0
		% within types of training in ODL	37.1%	35.5%	27.4%	100.0%

$\chi^2_{\text{cal.}} = 12.9$ Critical value = df = 2 (Significant)

Table 9: Types of ODL training participated in ODL and Knowledge of Tutorial facilitation

			v32cc knowledge of tutorial facilitation			Total
			knowledge not adequate	average knowledge	knowledge very adequate	
v9b types of training in ODL participated in	training in ODL adequate	Count	8	13	12	33
		Expected Count	12.2	10.6	10.1	33.0
		% within types of training in ODL	24.2%	39.4%	36.4%	100.0%
	training in ODL not adequate	Count	15	7	7	29
		Expected Count	10.8	9.4	8.9	29.0
		% within types of training in ODL	51.7%	24.1%	24.1%	100.0%
Total	Count	23	20	19	62	
	Expected Count	23.0	20.0	19.0	62.0	
	% within types of training in ODL	37.1%	32.3%	30.6%	100.0%	

$\chi^2_{\text{cal.}} = 500$ critical value = df = 2 (Result not significant)

Table 10: Types of ODL training participated in ODL and Knowledge of Research methodology

			v40 knowledge of research methodology in ODL					Total
			none	little	average	extensive	very extensive	
v9b types of training in ODL participated in	training in ODL adequate	Count	0	1	16	12	3	32
		Expected Count	1.0	5.8	13.6	8.9	2.6	32.0
		% within types of training in ODL	.0%	3.1%	50.0%	37.5%	9.4%	100.0%
	training in ODL not adequate	Count	2	10	10	5	2	29
		Expected Count	1.0	5.2	12.4	8.1	2.4	29.0
		% within types of training in ODL	6.9%	34.5%	34.5%	17.2%	6.9%	100.0%
Total	Count	2	11	26	17	5	61	
	Expected Count	2.0	11.0	26.0	17.0	5.0	61.0	
	% within types of training in ODL	3.3%	18.0%	42.6%	27.9%	8.2%	100.0%	

$\chi^2_{\text{cal.}} = 1.7$; critical value = df = 12 (Significant)

Table 11: Knowledge and Skills in ODL and General Attributes of ODL

			v16cc general attributes			Total
			knowledge not adequate	average knowledge	knowledge very adequate	
v10b knowledge & skills in ODL	knowledge and skills adequate	Count	10	15	6	31
		Expected Count	15.0	12.0	4.0	31.0
		% within knowledge & skills in ODL	32.3%	48.4%	19.4%	100.0%
	knowledge and skills inadequate	Count	20	9	2	31
		Expected Count	15.0	12.0	4.0	31.0
		% within knowledge & skills in ODL	64.5%	29.0%	6.5%	100.0%
Total	Count	30	24	8	62	
	Expected Count	30.0	24.0	8.0	62.0	
	% within knowledge & skills in ODL	48.4%	38.7%	12.9%	100.0%	

$\chi^2_{\text{cal.}} = 16.83$ critical value = df = 2 (Significant)

Table 12: Knowledge and Skills in ODL and Knowledge of programme and course design and development

			v25cc knowledge of programme & course design/development			Total
			knowledge not adequate	average knowledge	knowledge very adequate	
v10b knowledge & skills in ODL	knowledge and skills adequate	Count	6	11	14	31
		Expected Count	11.5	11.0	8.5	31.0
		% within knowledge & skills in ODL	19.4%	35.5%	45.2%	100.0%
	knowledge and skills inadequate	Count	17	11	3	31
		Expected Count	11.5	11.0	8.5	31.0
		% within knowledge & skills in ODL	54.8%	35.5%	9.7%	100.0%
Total	Count	23	22	17	62	
	Expected Count	23.0	22.0	17.0	62.0	
	% within knowledge & skills in ODL	37.1%	35.5%	27.4%	100.0%	

$\chi^2_{\text{cal.}} = 12.3$; critical value = df = 2 Result is significant

Table 13: Knowledge and Skills in ODL and Tutorial facilitation

			v32cc tutorial facilitation			Total
			knowledge not adequate	average knowledge	knowledge very adequate	
v10b knowledge & skills in ODL	knowledge and skills adequate	Count	6	12	13	31
		Expected Count	11.5	10.0	9.5	31.0
		% within knowledge & skills in ODL	19.4%	38.7%	41.9%	100.0%
	knowledge and skills inadequate	Count	17	8	6	31
		Expected Count	11.5	10.0	9.5	31.0
		% within knowledge & skills in ODL	54.8%	25.8%	19.4%	100.0%
Total	Count	23	20	19	62	
	Expected Count	23.0	20.0	19.0	62.0	
	% within knowledge & skills in ODL	37.1%	32.3%	30.6%	100.0%	

$\chi^2_{\text{cal.}} = 8.64$; critical value = df = 12 (Significant)

Table 14: Knowledge and Skills in ODL and Research Methodology in ODL

			v40 research methodology in ODL					Total
			none	little	average	extensive	very extensive	
v10b knowledge & skills in ODL	knowledge and skills adequate	Count	0	2	13	12	3	30
		Expected Count	1.0	5.4	12.8	8.4	2.5	30.0
		% within knowledge & skills in ODL	.0%	6.7%	43.3%	40.0%	10.0%	100.0%
	knowledge and skills inadequate	Count	2	9	13	5	2	31
		Expected Count	1.0	5.6	13.2	8.6	2.5	31.0
		% within knowledge & skills in ODL	6.5%	29.0%	41.9%	16.1%	6.5%	100.0%
Total	Count	2	11	26	17	5	61	
	Expected Count	2.0	11.0	26.0	17.0	5.0	61.0	
	% within knowledge & skills in ODL	3.3%	18.0%	42.6%	27.9%	8.2%	100.0%	

$\chi^2_{\text{cal.}} = 9.53$; critical value = df = 4 Result (Significant)